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## **ABSTRACT**

Apparatuses and methods are disclosed for communications using current detection. According to one embodiment, a transmitter generates a signal on a transmission line by switching between two power sources. According to one embodiment, the transmitted signal is a balanced signal. Under an embodiment, a signal 5 that has been transmitted on the transmission line is received by a receiver that includes a current detector, and the receiver detects the signal by sensing changes in current on the transmission line. According to one embodiment, the current detector includes a sensor that senses changes in the magnetic field generated by changes in current in the transmission line.

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